

REMARKS

The Office Action dated December 13, 2005 has been received and carefully noted. The above amendments to the title, specification and claims, and the following remarks, are submitted as a full and complete response to the Office Action.

The title and specification are amended to correct informalities. New claims 12 and 13 are added. Support for the new claims is found at least in Figure 1-3 and pages 13 line second paragraph – page 14 first paragraph of the present specification. No new matter is added.

Claims 1-13 are respectfully submitted for consideration.

The Office Action objected to the specification because of formalities. Applicants respectfully submit that the specification is amended to remove the reference to claims. Accordingly, withdrawal of the objection to the specification is respectfully requested.

The Office Action rejected claims 1, 2, 8, 10, and 11 under 35 U.S.C. 102(b) as being anticipated by Japanese Publication No. 10-000626 (JP '626). This rejection is respectfully traversed.

Claim 1, from which claims 2-11 depend, recites a disc-molding mold that includes (a) a first support member and (b) a first disc-shaped member attached to the first support member. The disc-molding mold further includes (c) a second support member, and (d) a second disc-shaped member attached to the second support member.

Further, the second disc-shaped member facing the first disc-shaped member and forming a cavity space in cooperation with the first disc-shaped member when the disc-

molding mold is clamped, wherein (e) a medium flow passage for temperature control is formed in each of the first and second disc-shaped members, (f) a stamper is removably attached to one of the first and second disc-shaped members, and (g) in the vicinity of outer peripheral edges of the first and second disc-shaped members, the cooling capacity of the medium flow passage of the stamper-side disc-shaped member is lower than the cooling capacity of the medium flow passage of the non-stamper-side disc-shaped member.

According to certain embodiments of the present invention, in the vicinity of outer peripheral edges of the first and second disc-shaped members, the cooling capacity of the medium flow passage of the stamper-side disc-shaped member is lower than the cooling capacity of the medium flow passage of the non-stamper side disc-shaped member.

Further, the closed chamber 63 filled with air is formed on a stamper-side mirror-surface disc 16, in the vicinity of the outer peripheral edges. Therefore, the cooling capacity of the first medium passage 61 is made lower than that of the second medium flow passage 62. Thus, on the stamper side, the quality of heat radiated from the outer peripheral edge of the mirror-surface disc 16 to the outside of the disc-molding mold is reduced, whereby over-cooling of the outer peripheral edge portion of the mirror-surface disc 16 can be prevented. See the present specification at least on page 21 lines 10-21. Applicants respectfully submit that the cited reference fails to disclose or suggest all of the features of these dependent claims.

JP '626 is directed to a method and apparatus for molding plastic. JP '626 is further directed to making a substrate wherein both the inner and outer peripheral parts have a uniform transfer property that is obtained with using an insulator, the effect of which changes according to the position in a cavity.

Applicants respectfully submit that JP '626 fails to disclose or suggest at least the feature of in the vicinity of outer peripheral edges of the first and second disc-shaped members, the cooling capacity of the medium flow passage of the stamper-side disc-shaped member is lower than the cooling capacity of the medium flow passage of the non-stamper-side disc-shaped member, as recited in claim 1.

In contrast, JP merely discloses “insulating material 13 disposed between stamper 4 and core 5 in moving mold 3. Therefore, Applicants respectfully submit that it cannot be determined either explicitly or implicitly, if the cooling capacity of the insulating material 13 is lower than that of the fixed mold, as alleged in the Office Action. Thus, JP '626 fails to disclose or suggest all of the features of claim 1.

Further, JP '626 is directed to charging resin in unequal temperatures by slowing down the resin cooling speed. In light of this, if the insulating material 13 is disposed in fixed mold 2, charging resin at unequal temperatures can also be achieved.

Applicants respectfully submit that because claims 2, 8, 10, and 11 depend from claim 1, these claims are allowable at least for the same reasons as claim 1. Further, Applicants submit that the JP '626 fails to disclose or suggest all of the features of these dependent claims.

Based at least on the above, Applicants respectfully submit that JP '626 fails to disclose all of the features of claims 1, 2, 8, 10, and 11. Accordingly, withdrawal of the rejection of claims 1, 2, 8, 10, and 11 under 35 U.S.C. 102(b) is respectfully requested.

The Office Action rejected claims 1-8, 10 and 11 under 35 U.S.C. 102(b) as being anticipated by US Patent Pub. No. 2002/0058084 to Sandstrom et al. (Sandstrom). This rejection is respectfully traversed. Claim 1 is characterized above. Applicants respectfully submit that Sandstrom fails to disclose or suggest all of the features of any of the pending claims.

Sandstrom is directed to an optical disk mold tooling for reduced edge wedge. Sandstrom further describes an injection molding apparatus used in the manufacture of an optical disk. The moving side of the apparatus 46 includes a thermal inhibiting mechanism which includes outer holder. The thermal inhibiting mechanism operates to inhibit heat flow from the outer edge of the disk substrate during cooling of the disk molding material. Further, Sandstrom discloses a resistive heater that is disposed in order to restrain heat transmission from the outer circumference of optical disk 20 to outer holder 68. See Figures 12 and 13 of Sandstrom. Still further, Sandstrom further discloses that the recirculating water coil 108 is disposed in order to restrain the heat transmission from the outer circumference of optical disk 20 to outer holder 68. See Figures 14 and 15 of Sandstrom.

Applicants respectfully submit that Sandstrom fails to disclose or suggest at least the feature in the vicinity of outer peripheral edges of the first and second disc-shaped

members, the cooling capacity of the medium flow passage of the stamper-side disc-shaped member is lower than the cooling capacity of the medium flow passage of the non-stamper-side disc-shaped member, as recited in claim 1.

Instead, Sandstrom discloses that the resistive heater 100 and recirculating water coil 108 are disposed on the moving side 46 and not on the fixed side 44. Thus, it can not be determined either implicitly or explicitly, in Sandstrom that the cooling capacity of the moving side 46 is lower than that of the fixed side 44. Thus, Sandstrom fails to disclose or suggest all of the features of claim 1.

Applicants respectfully submit that because claims 2-8, 10, and 11 depend from claim 1, these claims are allowable at least for the same reasons as claim 1. Further, Applicants respectfully submit that Sandstrom fails to disclose or suggest all of the features of these dependent claims.

Based at least on the above, Applicants respectfully submit that Sandstrom fails to disclose or suggest all of the features recited in claims 1-8, 10 and 11. Accordingly, withdrawal of the rejections of claims 1-8, 10 and 11 under 35 U.S.C. 102(b) is respectfully requested.

As discussed above, new claims 12 and 13 are added. Applicants respectfully submit that the cited references taken individually or in combination, fail to disclose all of the features recited in these claims.

Applicants respectfully submit that each of claims 1-13 recited features that are neither disclosed nor suggested in any of the cited references. Accordingly, Applicants

respectfully request that each of claims 1-13 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'D.E.B.', is written over a horizontal line.

David E. Brown
Registration No. 51,091

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

DEB:jkm